



US006031059A

United States Patent [19][11] **Patent Number:** **6,031,059****Vanderlaan et al.**[45] **Date of Patent:** **Feb. 29, 2000**

[54] **OPTICALLY TRANSPARENT HYDROGELS
AND PROCESSES FOR THEIR
PRODUCTION**

[75] Inventors: **Douglas G. Vanderlaan**, Jacksonville;
Frank Molock, Orange Park;
Giancarlo Fruzzetti, Jacksonville, all
of Fla.

[73] Assignee: **Johnson & Johnson Vision Products,
Inc.**, Jacksonville, Fla.

[21] Appl. No.: **09/163,693**

[22] Filed: **Sep. 30, 1998**

[51] **Int. Cl.⁷** **C08F 30/08**

[52] **U.S. Cl.** **526/279; 522/99; 525/383**

[58] **Field of Search** **526/279; 522/99;
525/383**

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,935,342 1/1976 Lim .

4,136,250 1/1979 Mueller et al. 528/29
4,182,822 1/1980 Chang 526/279
4,260,725 4/1981 Keogh et al. .
4,261,875 4/1981 LeBocuf .
4,332,922 6/1982 Kossmehl et al. .
4,419,505 12/1983 Ratkowski et al. .
4,481,322 11/1984 Godlewski et al. .
4,486,577 12/1984 Mueller et al. .
4,575,546 3/1986 Klemarczyk et al. .
4,649,184 3/1987 Yoshikawa et al. .

FOREIGN PATENT DOCUMENTS

0 030 807 6/1981 European Pat. Off. .
86214688 3/1988 Japan .

Primary Examiner—Melvyn I. Marquis

Attorney, Agent, or Firm—Lois Gianneschi

[57] **ABSTRACT**

The invention provides hydrogels for use in the production of biomedical devices. In particular, the invention provides hydrogels formed from siloxane prepolymers and a hydrophilic monomer, which hydrogels are optically transparent.

21 Claims, No Drawings